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ENVIRONMENTAL SECURITY

A Role For Educators

The 1977 B. Y. Morrison
Memorial Lecture

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The B. Y. Morrison Memorial Lectureship was established by the Agricultural Research Service of the U.S.

Department of Agriculture to recognize outstanding accomplishments in the sciences and practice of ornamental horticulture and other environic sciences . . . to encourage their wider application to improve the quality of life . . . and to stress the urgency of preserving and enhancing natural beauty in man's surroundings.

Lecturers meeting these standards of achievement and capable of giving effective voice to vital environmental messages are chosen from nominations submitted to a formal selection panel established by the Department. Nominations are obtained from scientific societies and other professional associations, foundations, universities, and previous lecturers. Each platform is selected to provide a distinguished audience, and to promote an exchange of ideas among leaders working to improve our environment. The texts of these lectures frequently are reprinted in popular and professional publications.

B. Y. Morrison (1891 — 1966) was a many-faceted man—a scientist, landscape architect, administrator, plant explorer, author, and lecturer. A pioneer in ornamental horticulture, he was the first Director of the National Arboretum, today one of the world's great botanic research and education centers. He gave the American public dozens of new ornamental plants, including the well-known Glenn Dale azaleas. He did much to advance the science of botany in the United States.

Morrison's plant exploration trips to the Orient, Europe, and Latin America made him a nationally known authority on foreign plants. He was one of the first Department officials to encourage introduction of ornamentals. His popular publications were among the first to promote plants to enhance the beauty of the land.

*The 1977 B. Y. Morrison
Memorial Lecture*

Presented in Cooperation With
the National Education Association
at their 115th Annual Meeting
in Minneapolis, Minnesota
July 5, 1977

ENVIRONMENTAL SECURITY

A Role For Educators

by Russell W. Peterson
New Directions
Washington, D.C.

Life on earth probably originated between one-and-a-half to two billion years ago. Today about one million species of animals have been identified. And there are about 300,000 species of plants. All of these are interdependent—all competing for the resources of our biosphere.

Many species have lost out over the ages and have become extinct. Others, through evolutionary change, have adjusted to their environment to become more competitive and to survive.

One of these species—homo sapiens—showed up at least three-and-a-half million years ago. It has evolved to the point where its knowledge, its tools and its selfishness now threaten all life. It is humankind's ability to acquire and store and retrieve knowledge, to think, to reason, and to use tools that has given it, among all species, both the power to create as well as to destroy.

Today the power to destroy threatens to win out.

The statements made and the opinions expressed in this lecture are those of the author. They do not necessarily reflect the opinions of the U.S. Department of Agriculture or the Agricultural Research Service.

It is the human brain which wields such power. Education is the way we train and discipline the brain. Parents, associates, writers, personal experiences contribute to such training. But you educators, as professionals dedicated to teaching during the most formative years, have a special opportunity and responsibility for the development of minds that will strive to improve and protect the total environment on which the quality of human life is so dependent.

It is not my purpose here today to lecture you on how to do your job. But I do wish to discuss with you six factors that I believe are especially pertinent to our common goal of helping to train ourselves and others to build a higher quality human environment on earth.

Four of them are relatively new factors while the other two have plagued humankind through recorded history.

The first three are the result of decisions and accomplishments over the years that have markedly changed humankind's relation to its natural environment and now threaten its survival.

At one time there were few of our species on earth and each with his simple tools could do little damage to the environment. Furthermore, the materials man used were products of nature that readily were absorbed back into the existing life cycles.

But today none of these three factors—small population, simple tools, and degradable products—pertains any longer.

There are now four billion of us humans. While it took over three-and-a-half million years for our population to reach one billion and one century to add the second billion, we will now add the fifth billion in only fifteen years.

The hoe, the shovel and the slingshot have given way to the gang cultivator, the bulldozer and the hydrogen bomb. And we produce new chemicals by the thousands that Mother Nature cannot break down and that trigger off cancerous growths and genetic changes with growing frequency.

These three factors multiplied together deliver hammer-blows at nature's resilience.

The fourth factor is the interdependence of all people on earth. In earlier periods each tribe and each nation lived relatively independently of each other. Communication and transportation were difficult. Today we are in instantaneous contact with each other. What happens in a Siberian wheat field affects the price of beef in Kansas; what happens to a single dissident in one country triggers off a worldwide debate; the release of an underarm deodorant in Chicago threatens to increase skin cancer in Yugoslavia; the deep-sea catch by land-locked Poland threatens the fishing industry of New England, etc.

Today the interdependence of the peoples of the world is an unalterable fact. Whether we like it or not we cannot go it alone.

The fifth and sixth factors are the selfishness and the myopia of our decision-makers. Business leaders are primarily interested in this year's operating statement—in making a buck today. Elected officials are primarily interested in the next election—in getting re-elected.

Recently I met with a principal in a large arms manufacturing company to ask for a contribution for New Directions, a citizens' organization I head, which is working to influence the role of the U.S. Government in world affairs. He thought the idea was great until I mentioned that one of our objectives was to reduce arms sales to foreign nations. Immediately he became belligerent, telling me that citizens' groups were not qualified to judge the propriety of arms sales. I received no contribution. Certainly all of us are qualified to participate in such social value judgments as whether or not our country should continue to be the world's leading merchant of armaments.

Industry has repeatedly fought social advances as a threat to their earnings, but after being forced to carry out such

advances they have made money as they did so. Recently they have been resisting the movement to clean up our air and water. Gradually, however, the truth is getting across that the new market for clean air and clean water is not only vitally important to our health, but is also a stimulant to our economy—not a depressant.

Public works projects have been notorious for wasting money, but effective in getting Congressmen re-elected. When, as Chairman of the President's Council on Environmental Quality, I criticized a specific irrigation project, I was lambasted by a congressman from the area involved. Upon asking him why he had attacked me so virulently, he said I shouldn't let that bother me—it was only politics. I said, "You know that project is a dog!" He replied, "Yes, but it's no worse than some others." He's right. There are at least nineteen others just as bad.

In 1976 the Council on Environmental Quality rated 20 such projects environmentally unsound while the Office of Management and Budget rated them economically unsound. All ended up in President Ford's budget and received Congressional approval.

President Carter has had the courage to remove nineteen of them from his budget, but these sacred cows, after bellying all over Capitol Hill, have received a majority vote of the House of Representatives.

Why is this? Because such projects pour hundreds of millions of dollars of Federal funds into areas where the local establishments make a financial killing and cheer and support their Congressmen for such benevolence. In exchange for this local dole, the nation loses environmentally and economically. This is one example of how our democratic system fails.

The solution to this is to get the people to force their elected officials to vote in the national public interest. The President represents the national public interest. I hope he vetoes the water projects, but the Congressmen from the

states that will receive the dole will try in effect to bribe him into signing by holding other critical legislation in hostage.

It seems to me that when Congressmen and Senators speak and vote on issues that affect the special interests of their most influential constituents, they have a conflict of interests. It is analagous to lobbying and voting on projects that fatten their own purse. They should be sent to Congress to vote in the interest of all American citizens.

In addition to the selfishness disease, we must somehow learn how to overcome the myopia—the near-term focus—of our decision-makers.

This problem is reminiscent of the gentleman who fell from the balcony of his 75th floor hotel room. Other guests heard him repeat as he fell, “So far, so good.” It may seem a far reach from that humble tale to the resolution of world problems. In fact, however, the falling gentleman’s self assurances seem to me at the heart of the key problem we need to resolve. His rationale could serve as a parable for man’s obstinate rejection of reality—and for our continuing failure to make the hard decisions necessary to reconcile man’s demands for near-term satisfaction with his long-term survival.

“So far, so good” is suicidal logic. The really troublesome element of it, however, is that it was absolutely irrefutable for the first 74 floors. Only arrival at the last floor betrayed a certain flaw in reasoning.

What is required today is a fundanmental change in how we look at the problems and at the world around us. What is required is an integrated, holistic, interdisciplinary approach. This must be applied with humanistic wisdom, avoiding the simple application of blind technology as we have too frequently practiced in the past.

To illustrate how focussing on the near-term leads to decisions that ignore forces leading us to long-term catastrophe, let me recall with you two disgraceful past events and concoct two probable future ones.

For many decades we pushed industrial development and public works projects with little concern for the environment. Finally our air, our water, our land became so befouled that the people—concerned about the security of life itself—rose up and demanded a change. Seeing their short-term personal goal of becoming re-elected threatened, the elected leaders then passed an avalanche of environmental legislation. Now we are on a safer course and the all-out developers are being dragged into the future screaming—and making money as they go!

Our leaders—making piecemeal, short-term, myopic decisions—got us into the Vietnam War. Finally the people—realizing that the justification for that war was phony and that the war was threatening our security, not enhancing it—got us out. And so ended one of the most disgraceful chapters in our history.

Now let's leave the past and look into the future to see where today's actions may be leading us.

It's 1990 and the TV announcer has just broken in to interrupt the Super-Sunday football game.

"A nuclear bomb has exploded in Atlanta. The city is gone. At least 300,000 people have totally disappeared. Out-lying facilities are swamped with tens of thousands of casualties from burns and radiation. The cloud of deadly radiation is heading up the East Coast. Please be calm! The President of the United States has announced that he will speak to the nation at ten o'clock tonight."

"Ladies and gentlemen, the President of the United States."

"My fellow citizens, please be calm! The tragedy in Atlanta this afternoon was not caused by the Soviet Union as initially indicated by the military. Fortunately the alarm was promptly removed by a call from the Soviet Premier denying any Soviet role and offering his country's help.

"A group called 'Food for the Hungry' claims to have set

off the bomb. They were suspected last year of having been involved in stealing a mixture of plutonium and uranium oxides from a French breeder reactor site. They demand that the U.S. Congress and the President move within one week to vote to send, gratis, one-half of all U.S. production of grain to those countries in South America and Africa where over one-half million people have starved to death. This horrible famine was caused by the serious drought that has plagued these areas and by the failure of the world community to establish a food reserve for such contingencies.

"The terrorists claim to have a similar bomb in a hotel suite in Washington, D.C., and threaten to explode it next Sunday unless their demands are met. A document delivered to the White House two hours ago gives a detailed description of the bomb and is signed by a nuclear physicist and a retired general—both previously known to be sympathetic with the 'Food for the Hungry' group.

"Congressional leaders are meeting now to plan their actions.

"I have declared a state of emergency in Georgia and because of the hazards from radiation have ordered the U.S. Army to take charge of the Federal emergency aid program.

"The nuclear cloud continues to move northeastward. It should reach Washington, D.C., in the early morning. Please remain tuned to your TV or radio for instructions on how to protect yourself from fall-out.

"I have ordered the Army to stand guard at all nuclear plants where any plutonium is stored and to guard any shipments that are made on our highways and railways.

"The FBI is rounding up all known members and sympathizers of 'Food for the Hungry', other dissidents and those who have been especially critical of our inadequate aid program for the developing world.

"Please be assured that we will do all in our power to protect you."

The scene fades at this point to be replaced by another—this time, 1998.

It's been three years since the world's production of oil peaked out, just as many had predicted, and just as it did in the United States way back in 1970. All-out efforts to increase the flow have failed to stem the declining production. The price of oil has quadrupled over the past three years as the wealthy nations bid up the price to obtain what they want. The poor nations are being squeezed out of the oil market and their economies are in desperate shape. They are threatening to use their atomic bombs if they don't receive what they need. Of all the nations, only Scandinavia and Australia appear to be in relatively good shape energywise. Their massive efforts to build a major solar energy base and to push mandatory conservation of energy have paid off.

The U.S. is rationing gasoline and heating fuel, its industry is operating far below capacity, unemployment is high, its balance of trade is in the worst shape ever, its garages and used-car lots are loaded with large gas guzzlers that can't be given away while used small cars are selling for twice their original price. The U.S. nuclear industry is in shambles ever since the terrorists blew-up Atlanta and the American people decided they would no longer tolerate the use of the atom-bomb-making material—plutonium—as an energy fuel. The one bright spot in the energy picture in the U.S. is the great surge in the production of solar energy, since it's now profitable to market solar energy. Employment in this industry is skyrocketing and as production picks up the unit costs come down, making solar energy ever more competitive. It's now clear that the U.S. should have subsidized this industry instead of the nuclear breeder industry back in the 70's and 80's.

U.S. relations with Saudi Arabia and Iran have deteriorated as these nations tried to conserve some of their precious oil while the U.S. pushed for more imports from Mideast oil fields. Both countries have powerful military machines equipped with the most sophisticated equipment purchased

from the U.S. Tens of thousands of U.S. civilians and military personnel are deeply involved in these countries.

On July 8, 1998, Saudi Arabia radio announced that their government had been overthrown by a faction more sympathetic with the U.S. Much rejoicing occurred in U.S. boardrooms and in the Pentagon as a better deal for U.S. oil imports was foreseen.

Two days later, an almost identical coup occurred in neighboring Iraq which for many years has been supplied with Soviet arms and personnel. A Russian general was named Deputy Head of State.

On July 15, 1998, the Shah gave the U.S. Government a schedule for drastically reducing its presence in Iran.

Ridiculous, you say! On the contrary, these are both plausible scenarios if we continue down the roads we are headed.

We need to change directions. This we can do if we focus on the long-range public interest and identify the self-serving special interests for what they are.

There are three principal threats to world security today. They are: the increasing build-up of nuclear and conventional arms, the plan to use the atom-bomb-making material—plutonium—as a power plant fuel, and global poverty and hunger. New Directions is working to mobilize a large citizens' lobby to influence the role of the U. S. Government in alleviating these threats. But we are opposed by potent special interests. This is especially true in our program toward arms limitation.

The third exacerbates the other two. With one billion people on earth going backwards in socio-economic status their growing frustration and hopelessness increases daily the probability that they will use whatever weapons they can acquire to strike out in acts of terrorism and warfare.

It is time to dust off President Eisenhower's departing advice to the nation to: "Beware of the military-industrial-scientific complex."

This triumvirate, strongly supported by a number of

hawks in Congress and by its allies in other countries, is leading us into bankruptcy and toward annihilation. It is growing in power and aggressiveness—clearly becoming one of our nation's most threatening present dangers. Its special interests are served by a growing production, sale and deployment of arms. An offshoot of this triumvirate is the world nuclear lobby, which is working both sides of the Atlantic orchestrating the comments of other industrialized countries in support of the rise of plutonium as an energy source.

Yes, of all the species on earth, humankind is the prime problem. It has the power to destroy all life.

But it also is the only species that can possibly provide a solution to the predicament it has created.

I see three approaches to helping mankind rise to the challenge—all of which involve the educational process—all of which can be effectively impacted by the work of you educators—all of which involve the use of the mind that sets our species apart from all others.

The first is to teach people that the quality of life for ourselves and future generations is dependent upon our making decisions in the public interest. Selfish interest is the enemy.

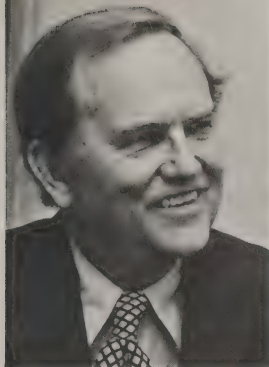
Those who have reached the top naturally like the system that has so rewarded them, and they work to sustain it even though it may not be best for the general welfare.

The second is to develop a holistic perspective to replace the traditional myopic perspective. "So far, so good" is suicidal logic.

The third is to teach and help people to organize to get action.

Isolated and standing alone, the people have neither the strength nor the courage to act. And without the facts they know not what choices they have.

Give the people the facts and the means to work together and they will fight for the public interest. This is our only hope.



The Honorable Russell W. Peterson is president of New Directions, a nationwide citizens' effort organized for the purpose of bringing influence to bear on the decision-making powers of Congress and the executive branch of the U.S. Government to help solve critical issues.

Since its inception in October 1976, New Directions has developed three initial political action objectives:

1. To take the safe energy route, based on conservation and renewable resources, and to prohibit the use of plutonium as a fuel.
2. To reduce the indiscriminate arms sales which intensify the potential for war.
3. To increase U.S. support of more self-reliant programs in developing countries.

In the last 8 eight years, after an innovative research and development career with the DuPont Company, Dr. Peterson, a Ph.D. in chemistry, has been in the public arena, a moving force for the improvement of social, environmental, and educational problems. From 1969 to 1973, he was Governor of the State of Delaware. During this period, he was chairman of the National Education Commission of the States and chairman of the Southern States Nuclear Board. He served as chairman of the President's Council on Environmental Quality from 1973 to 1976, was vice chairman of the U.S. Delegation to the U.N. World Population Conference in Bucharest in 1974, and vice chairman of the U.S. Delegation to the U.N. World Conference on Human Settlements, Vancouver, 1976.

He is chairman of the Council on Solar Biofuels; a director of the Alliance to Save Energy, the World Wildlife

Fund, the Population Crisis Committee, and the U.S. Association of the Club of Rome; vice chairman of the Council of Former Governors and Regional vice chairman of the National Municipal League.

Dr. Peterson is the recipient of many awards, including the American Chemical Society's Parsons Award, the National Wildlife Federation's Conservationist of the Year Award, the World Wildlife Fund's Gold Medal Award, the National Municipal League's Distinguished Citizen's Award, and the Citizenship and Brotherhood Award of the National Conference of Christians and Jews. He is a member of Phi Beta Kappa, and was awarded an honorary doctor of science degree by Williams College.

Previous Lecturers and Cosponsoring Organizations

- 1968 Mrs. Lyndon B. Johnson; American Institute of Architects, Portland, Oregon, June 26.
- 1969 Prof. Patrick Horsbrugh, creator of the Graduate Program in Environic Studies, Notre Dame University; General Federation of Women's Clubs, Cleveland, Ohio, June 3.
- 1970 Dr. Arie J. Haagen-Smit, Chairman, President's Task Force on Air Pollution; American Society of Landscape Architects, Williamsburg, Virginia, April 28.
- 1971 Mr. Ian L. McHarg, Chairman of the Graduate Department of Landscape Architecture and Regional Planning at the University of Pennsylvania; The Thirty-sixth North American Wildlife and Natural Resources Conference, Portland, Oregon, March 10.
- 1972 Dr. Rene Dubos, Professor Emeritus of The Rockefeller University; American Association of the Advancement of Science, Washington, D. C., December 29.
- 1973 Dr. John P. Mahlstede, Professor of Horticulture, Iowa State University; 28th Congress of The American Horticultural Society, New Orleans, Louisiana, October 6.
- 1974 Ms. Barbara Ward (Lady Jackson), President, The International Institute for Environmental Affairs; The Fortieth Annual National Planning Conference of The American Society of Planning Officials, Chicago, Illinois, May 12.

- 1975 Mr. Nash Castro, General Manager, Palisades Interstate Park Commission; The Centennial Celebration of the American Association of Nurserymen, Chicago, Illinois, July 21.
- 1976 Mr. William K. Reilly, President, The Conservation Foundation; the National League of Cities' Annual Congress of Cities, Miami, Florida, November 30.

Agricultural Research Service
U.S. Department of Agriculture
Washington, D.C. 20250

October 1977

☆ U.S. GOVERNMENT PRINTING OFFICE: 1977-731-597/24-31

